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| 09/978,425 | 10/15/2001 | Joseph P. Odenwalder | 020034 | 5005 |
| 23696 | 7590 | 03/10/2005 | EXAMINER | |
| Qualcomm Incorporated Patents Department 5775 Morehouse Drive San Diego, CA 92121-1714 | | | YANG, LINA | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2665 | |

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/978,425

Applicant(s)

ODENWALDER ET AL.

Examiner

Lina Yang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/15/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/19/2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification Objections

1. The disclosure is objected to because of the following informalities:

Paragraph [1055] line 8, it appears that "...606..." should be replaced with "...602..."

Paragraph [1061] line 8, it appears that "...equal to the number of Walsh channels of the second subscriber station." should be replaced with "...equal to the number of Walsh channels of the first subscriber station."

Paragraph [1062] line 7, it appears that "...in the blocks 702(1), 702(1)." should be replaced with "...in the blocks 702(1), 702(2)."

Paragraph [1073] line 5, it appears that all "...the TDM channels 99(i)," should be replaced with "...the CDM channels 99(i),"

Paragraphs [1075]; [1080]; [1082]; [1085], it appears that all "1208(i)" should be replaced "1202(i)".

Paragraph [1098] lines 11-17, it appears that all "1118(i)" should be replaced "1302(i)".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Hsu et al. (U.S. Patent No. 6665309 B2).

Regarding claim 1, Hsu discloses a method to generate a first control channel (a single forward shared/common control channel, col. 4, lines 20-23) comprising an identity of at least one subscriber station (user) and a number of second (forward shared channels)(col. 3, lines 36-40, also please see Fig. 2). Hsu further discloses that generating at least one second control channel (forward shard channel) comprising information enabling at least one subscriber (one user, one MAC ID) (Fig. 4, col. 8, lines 30-40) to demodulate a traffic channel (col. 3, lines 52-57).

Regarding claim 2, Hsu further discloses that in 1XTREME schemes, over one forward shared control channel, information, e.g., Walsh code assignment, etc. related to one, or more, forward shared channels is carried (col. 3, lines 41-43).

3. Claims 1, 3, 6, 8, 11, 12, 14, 18 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Das et al. (U.S. Patent Application Publication No. 20020167992 A1).

Regarding claim 1, Das discloses a method to generate a first control channel (primary control channel) comprising an identity of at least one subscriber station (user information) (paragraph [006], lines 10-12; paragraph [009] lines 1-3; paragraph [0015]

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lines 16-19). Das further discloses that many communication systems comply with standards require the use of more than one control channel per data channel, for example, there are two control channels per data channel are used in CDMA communication systems that comply with CDMA2000-1x-EV-DV (paragraph [006], lines 1-6). Das further teaches that the first (primary) control channel also comprises the information of second control channels (paragraph [009], lines 3-6). Das further teaches generating at least one second (secondary) control channel (paragraph [006]) comprising information enabling at least one subscriber (one user, one MAC ID) (paragraph [008]: MAC ID, which identifies a user on the shared channel; sub-packet ID, ARQ ID, new packet indication which identifies the first sub-packet of a group of sub-packets being transmitted or acts to demarcate one group of sub-packets from another group) to demodulate (decode) a traffic channel (paragraph [0006], lines 6-10).

Regarding claim 6, Das discloses demodulating the first control channel (primary control channel) comprising an identity of at least one subscriber station (user information) and a number of control channels; demodulating the second control channel if the identity is identical to an identity of the subscriber station (through the MAC ID, paragraph [008]); and demodulating the traffic channel in accordance with said enabling information (paragraph [006], lines 6-10). Das further teaches that when the first (primary) control channel information, the modulated (scrambled) second (secondary) control channel information and the user information are received, the information in the first (primary) control channel is retrieved (demodulated) such that

the demodulating (descrambling) operation can be performed on the second (secondary) control and traffic (data) channels in accordance with the received (demodulated) primary control channel information and the defined scrambling scheme (paragraph [0019], lines 1-13).

Regarding claim 12, Das has been stated above in 102(e) rejection for claim 1. Das further discloses: transmitting the control channels; demodulating the received first control channel (primary control channel, paragraph [0019]); determining an identity of at least one subscriber (user) station and a number of second control channels in accordance with said demodulated first control channel (paragraph [006], lines 1-6, 10-12; paragraph [0009] lines 1-6); demodulating the second control channel comprising information enabling a subscriber (user) station to demodulate a traffic channel if the identity is identical to an identity of the subscriber station (through the MAC ID, paragraph [008]); and demodulating the traffic channel in accordance with said enabling information (paragraph [006], lines 6-10). Das further teaches that when the first (primary) control channel information, the modulated (scrambled) second (secondary) control channel information and the user information are received, the information in the first (primary) control channel is retrieved (demodulated) such that the demodulating (descrambling) operation can be performed on the second (secondary) control and traffic (data) channels in accordance with the received (demodulated) primary control channel information and the defined scrambling scheme (paragraph [0019], lines 1-13).

Regarding claim 3, in addition to the 102(e) rejection for claim 1, Das further discloses that the second (secondary) control channel comprising a number of sub-divisions and a starting sub-division of a unit of the traffic channel (a new packet indication which identifies the first sub-packet of a group of sub-packets being transmitted or acts to demarcate one group of sub-packets from another group; paragraph [008], lines 10-13).

Regarding claim 8 and 18, in addition to the 102(e) rejection for claim 6 and 12, Das further discloses determining the position of the identity within the received first control channel and select a second control channel with said determined position and demodulating said selected second control channel (through the MAC ID, paragraph [008]). Das further teaches that when the first (primary) control channel information, the modulated (scrambled) second (secondary) control channel information and the user information are received, the information in the first (primary) control channel is retrieved (demodulated) such that the demodulating (descrambling) operation can be performed on the second (secondary) control and traffic (data) channels in accordance with the received (demodulated) primary control channel information and the defined scrambling scheme (paragraph [0019], lines 1-13).

Regarding claims 11, 14 and 21, Das has been stated above in 102(e) rejection for claims 6 and 12. Das further discloses that the second (secondary) control channel comprising a number of sub-divisions and a starting sub-division of a unit of the traffic

channel (a new packet indication which identifies the first sub-packet of a group of sub-packets being transmitted or acts to demarcate one group of sub-packets from another group; paragraph [008], lines 10-13).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 4, 5, 7, 9, 13, 15, 16, 17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Das et al. (U.S. Patent Application Publication No. 20020167992 A1) in view of Hsu et al. (U.S. Patent No. 6665309 B2).

Regarding claims 2, 13, 9, 19 and 20, Das has been stated above in 102(e) rejection for claims 1 and 12. Das differs from the claimed invention in that Das does not disclose to determine the size of traffic channel unit and a number of code channels and

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demodulating the traffic channel unit. However, Hsu discloses that in 1XTREME schemes, over one forward shared control channel, information, e.g., Walsh code assignment, etc. related to one, or more, forward shared channels is carried (col. 3, lines 41-43). Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to include generating at least one second control channel comprising a number of code channels encoding a unit of the traffic channel as taught by Hsu in the assembly of Das in order to enable multiple users to access shared forward channels simultaneously.

Regarding claims 4, 5, 15 and 16 Das has been stated above in 102(e) rejections for claims 1 and 12. Das differs from the claimed invention in that Das does not disclose to include transmitting the first control channel at a power required by a subscriber station with the worst forward link quality metric for which the first channel is intended; and include transmitting the at least one second control channel at a power required by the at least one subscriber station for which the at least one second control channel is intended. However, it is well known in the art that reduced power consumption is very important in wireless communication. For example, Hsu teaches that only relative low-power signals need to be generated to effectuate communications between a mobile station and a base transceiver station (col. 2 lines 30-32). Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to include transmitting the first control channel at a power required by a subscriber station with the worst forward link quality metric for which the first channels; and include

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transmitting the at least one second control channel at a power required by the at least one subscriber station for which the at least one second control channel is intended as taught by Hsu in the assembly of Das in order to effectively utilize the power.

Regarding claims 7 and 17, Das has been stated above in 102(e) rejection for claim 6 and 12. Das differs from the claimed invention in that Das does not disclose to demodulate a pre-determined control channel. However, Hsu discloses demodulating a pre-determined control channel (such as by way of a layer 3 message allocated thereto when the mobile station registers with the system, col. 7, lines 54-58; last line in col. 7 and lines 1-6 in col. 8).

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

5. A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 6, 7, 10 and 11 of current application (Application No. 09978425) are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of

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claims 8, 10, 11 and 12 of copending Application No. 09981027. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claims 1, 2, 3, 4 and 5 of current application (Application No. 09978425) are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1, 3, 7, 4 and 5 of copending Application No. 09981027. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claims 12, 13, 14, 15, 16, 17, 20 and 21 of current application (Application No. 09978425) are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 13, 14, 19, 16, 17, 21, 22 and 23 of copending Application No. 09981027. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kwon et al. (US Publication Application No. 20030031230 A1) discloses a base station transmission apparatus for transmitting MAC ID information indicating a terminal to receive transmission packet data and length information of the transmission packet data in a mobile communication system for high-speed packet transmission, having an encoder for encoding a bit stream indicating the MAC ID information and generating


coded symbols; a Walsh cover section for Walsh-covering the coded symbols from the encoder with a Walsh code based on the length information; and a Walsh spreader for spreading the Walsh-covered symbols from the Walsh cover section with a predetermined Walsh code.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lina Yang whose telephone number is (571) 272-3151. The examiner can normally be reached on Monday-Friday (8:00am-6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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